INDEX

A	В
	Basic Industry Structures, 133
Activity When Injured firefighter deaths, 154–156 firefighter injuries, 171–172	Burn Injuries, 31
Adjusted Percentages, 24	C
Age firefighter deaths by cause and nature, 158–159 firefighter injuries, 169	Careless Smoking See also Causes defined, 26–27
injuries, 40 relative risk, 40 national deaths and injuries, 6–7, 40–44 by gender, 37, 41 percent of deaths, by sex, 43	Cause Categories, defined, 25–27 Cause of Injury firefighter deaths, 156–158 firefighter deaths by age, 158–159 firefighter injuries, 171
Apartments, 4, 93 cause trends, 94, 97 causes, 94–95 month of year, 102 origin of fire, 102–106 smoke detectors, 98 sprinklers, 99–100	Cause Trends apartments, 94, 97 hotels/motels, 108, 110 mobile properties, 142–144 non-residential structures, 129–130 one- and two-family dwellings, 80–81 residential properties, 62–66
time of day, 99–101 trends, 94–95 Appliances See also Causes defined, 26–27	Causes See also Cause Trends apartments, 94–95 automobiles, 144, 145 garages, 90 hotels/motels, 108–109 manufactured housing, 93 mobile homes, 92
Areas of Fire. See Origin of Fire Arson, 13–14, 184 See also Causes day of week, 190, 192 defined, 26–27 fixed property use, 190, 192 motives of firesetter, 190–192 population centers, 189–190	mobile properties, 138, 142 month of year, 9 national deaths and injuries, 52 by gender, 52, 54–55 non-residential structures, 10, 127–129 one- and two-family dwellings, 78–80 other residential properties, 112–113 outside properties, 150, 151 residential properties, 8–9, 59–62
population size, 189 per capita fire rate, 189 property types, 13–14, 184, 186–187 structures, 190–191	Children Playing See also Causes defined, 26–27
residential properties, 186 residential vs. non-residential properties, 186, 188 time of day, 190–191	Cooking See also Causes defined, 26–27
trends, 184–185 residential properties, 186, 188	Cost of Fire, 15–16, 33, 197–201 See also Dollar Loss components, 15, 198
Automobiles See also Mobile Properties causes, 144, 145	deaths and injuries, 199 direct losses, 199 fire protection, 199–200

fire service, 199	apartments, 102
indirect losses, 199	one- and two-family dwellings, 78
insurance overhead, 199	residential properties, 73
operations, 199	non-residential property types, 123
percentage by element, 200	origin of fire
	apartments, 103, 105
	one- and two-family dwellings, 9, 83, 85
D	other residential property types, 112
	outside property types, 148
Day of Week	property types, 46
arson, 190, 192	rank order of states, 39–40
non-residential structures, 127	relative risk by age, 42
outside properties, 146, 150	residential property types, 59
residential properties, 73–74	smoke detector performance
	apartments, 98
Death Rates	one- and two-family dwellings, 87
international	residential properties, 67
per capita, 16, 179–182	sprinkler performance
trends, 182	apartments, 99
national	one- and two-family dwellings, 87
by state, 3–4, 34	time of day
rank order by state, 37–38	apartments, 100 non-residential structures, 125
state comparison with national average, 34–35	one- and two-family dwellings, 76
per capita, by state, 33–34	residential properties, 71–72
Deaths	trends
age, 43	apartment causes, 97, 210
by gender, 44	apartments, 95
arson	arson, 185
property type, 186	arson by property type, 187
residential properties, 188	firefighters, 154
causes	garages, 89
apartments, 96	gender, 40
automobiles, 145	general property type, 48
by gender, 54	hotel/motel causes, 211
garages, 90	hotels/motels, 107, 111
hotels/motels, 109, 113	manufactured housing, 91
manufactured housing, 93	mobile properties, 139
mobile properties, 142	mobile property causes, 143
national, 53	mobile property type comparison, 140
non-residential structures, 128	national, 2–3, 30
one- and two-family dwellings, 79	non-residential structure causes, 130, 212
other residential properties, 113	non-residential structures, 122
residential properties, 60	one- and two-family dwelling causes, 81, 209
day of week, residential properties, 73	one- and two-family dwellings, 75
firefighters	other residential properties, 111
activity when injured, 155	outside properties, 147 ratio of NFIRS to NFPA, 203
activity when injured on fireground, 160	residential properties, 58
cause of injury by age, 159	residential property causes, 64, 208
cause of injury, 157	residential smoke detectors, 69
fixed property use when injured on fireground, 159	
gender, 154	Deaths Per Capita
month of year, 163	international
nature of injury, 157	1992 rate, 181
nature of injury by age, 159	average, 180
time of alarm, 162	rate of decrease, 181
type of firefighter, 154	national
international, 182	by age, 42
leading causes, residential properties, 61	by gender and age, 41
mobile property types, 141	rank order of states, 38
month of year	trends, national, 2–3, 32

Deaths Per Fire	Dollar Loss Per Fire NFIRS vs NFPA, 204–205
NFIRS vs NFPA, 204–205	non-residential structures, sprinkler performance,
property types, 50 trends	137
general property type, 51, 52	property types, 50
manufactured housing, 92	1 1 7 71
Dollar Loss	_
	E
arson	
property type, 186 structure types, 191	Eating and Drinking Establishments, 131
basic industry structures, 133	Education Structures, 132
causes	
national, 53	Electrical Distribution
non-residential structures, 129	See also Causes
residential properties, 60	defined, 26–27
eating and drinking establishments, 131	Ethnic Groups, national, 45
education structures, 132	
institutional structures, 132	Exposure
leading causes, residential properties, 61	<i>See also</i> Causes defined, 26–27
manufacturing structures, 134	defined, 20–27
mobile property types, 141	
non-residential property types, 123	_
other residential property types, 112	F
outside property types, 148	_ ,
outside structures/unknown, 135	Females. See Gender
property types, 46	Firefighter Casualties, 12–13, 153
public assembly structures, 131	ů .
residential property types, 59	Firefighter Deaths, 153
storage structures, 134	activity when injured, 154–156
stores and offices, 133	cause of injury, 156–158 cause of injury by age, 158–159
time of day	fireground, 158–161
apartments, 101	fixed property use, 158–160
non-residential structures, 126	gender, 153–154
one- and two-family dwellings, 77	month of year, 162–163
residential properties, 72–73 trends	nature of injury, 156–158
	nature of injury by age, 158–159
apartments, 95 arson, 185	Storm King Mountain, 153, 154, 155
garages, 89	time of alarm, 161–162
general property type, 49	trends, 13, 153–154
hotels / motels , 107 , 111	type of duty when injured, 154–156
manufactured housing, 91	type of firefighter, 153–154
mobile properties, 139	Firefighter Injuries, trends, 13
mobile property type comparison, 140	Firefighter Injuries, 162
national, 2–3, 30	activity when injured, 171–172
non-residential structure causes, 130, 212	age, 169
non-residential structures, 122, 206	cause of injury, 171
one- and two-family dwellings, 75	month of year, 169, 170
other residential properties, 111	part of body injured, 169, 171
outside properties, 147	property type trends, 164–165
outside property type comparison, 148	property types, 162
ratio of NFIRS to NFPA, 203	structures, 164–165
residential properties, 58	time of day, 169, 170
residential property causes, 66, 208	trends, 13, 162–163
vacant and construction structures, 135	non-residential structures, 164, 166
Dollar Loss Per Capita, trends, national, 32	residential properties, 164–165 where treated, 171
2 July 2000 I of Capita, a chao, hadding, ow	WHICE CICACO, 1/1

Firefighter Injuries Per Fire	public assembly structures, 131
property type, 168–169	residential property types, 59
trends	smoke detector performance
non-residential structure, 168	apartments, 98
residential properties, 164	one- and two-family dwellings, 87
residential structures, 167	residential properties, 67
type of fire, 164, 166	sprinkler performance
••	apartments, 99
Fireground	non-residential structures, 136
firefighter deaths, 158–161	one- and two-family dwellings, 87
fixed property use, 158–160	residential properties, 70
month of year, 162–163	storage structures, 134
firefighter injuries, trends, 162–163	time of day
	apartments, 100
Fires	non-residential structures, 125
arson	one- and two-family dwellings, 76
day of week, 192	outside properties, 149
fixed property use, 192	residential properties, 71
population size, 190	trends
property type, 186	apartment causes, 97, 210
residential vs. non-residential properties, 188	apartments, 95
structure types, 191	arson, 185
time of day, 191	arson by property type, 187
basic industry structures, 133	garages, 89
causes	general property type, 48
apartments, 96	
automobiles, 145	hotel/motel causes, 110, 211
garages, 90	hotels / motels, 107, 111
hotels/motels, 109, 113	manufactured housing, 91
manufactured housing, 93	mobile properties, 139
mobile properties, 142	mobile property causes, 143
national, 53	mobile property type comparison, 140
non-residential structures, 128, 129	national, 2–3, 30
one- and two-family dwellings, 79	non-residential sprinklers, 136
other residential properties, 113	non-residential structure causes, 130, 212
outside properties, 151	non-residential structures, 122, 206
residential properties, 60	one- and two-family dwelling causes, 81, 209
day of week	one- and two-family dwellings, 75
non-residential structures, 127	other residential properties, 111
outside properties, 150	outside properties, 147
residential properties, 73	ratio of NFIRS to NFPA, 203
eating and drinking establishments, 131	residential properties, 58
education structures, 132, 133	residential property causes, 63–66, 208
institutional structures, 132	residential smoke detectors, 69
leading causes, residential properties, 61	residential sprinklers, 70
manufacturing structures, 134	vacant and construction structures, 135
mobile property types, 141	Fires Per Capita
	arson, population size, 189
month of year	national, property types, 47
apartments, 102	trends, national, 32
non-residential structures, 127	ti citus, fiationai, 32
one- and two-family dwellings, 78	Fixed Property Use
outside properties, 149	arson, 190, 192
residential properties, 73	firefighter deaths on fireground, 158-160
non-residential property types, 123	
origin of fire	
apartments, 103–104	C
one- and two-family dwellings, 9, 83, 84	G
other residential property types, 112	
outside property types, 148	Garages, 4, 88, 89–90
outside structures/unknown, 135	causes, 90
property types, 46	trends, 89

Gender firefighter deaths, 153–154 national deaths and injuries, 6, 37, 40–41	time of day, 170 where treated, 173 leading causes, residential properties, 61 mobile property types, 141
by age, 37, 41 causes, 52, 54–55	non-residential property types, 123
General Property Type	origin of fire
firefighter injuries, trends, 162	apartments, 103, 106 one- and two-family dwellings, 9, 83, 86
national, 4-5, 45, 46-47	other residential property types, 112
severity trends, 47	outside property types, 148
trends, 47–49	property types, 46
	relative risk by age, 42
	residential property types, 59
Н	time of day
	apartments, 101
Heating	non-residential structures, 126
See also Causes	one- and two-family dwellings, 77
defined, 26–27	residential properties, 72 trends
one- and two-family dwellings, 80	apartment causes, 97, 210
Hotels/Motels, 5, 106	apartments, 95
cause trends, 108, 110	arson, 185
causes, 108–109	firefighter injuries by non-residential structure type,
trends, 106–107	166
other residential properties, 111	firefighter injuries by residential structure type, 165 firefighters, 163
	firefighters by property type, 164
	firefighters, per non-residential structure fire, 168, 213
•	firefighters, per residential structure fire, 167
Ignition Factors	firefighters, per type of fire, 166, 213
causes, non-residential structures, 128	garages, 89 gender, 40
mobile properties. See Causes	general property type, 49
Incendiary. See Arson	hotel/motel causes, 211
·	hotels/motels, 107, 111
Injuries	manufactured housing, 91
age, 43	mobile properties, 139
by gender, 44	mobile property causes, 144
arson	mobile property type comparison, 140 national, 1–2, 30
property type, 186 residential properties, 188	non-residential structure causes, 130, 212
causes	non-residential structures, 122
apartments, 96	one- and two-family dwelling causes, 81, 209
automobiles, 145	one- and two-family dwellings, 75
by gender, 54	other residential properties, 111
garages, 90	outside properties, 147
hotels / motels , 108 , 109 , 113	ratio of NFIRS to NFPA, 203
mobile properties, 142	residential properties, 58
national, 53	residential property causes, 65, 208
non-residential structures, 128	Injuries Per Capita
one- and two-family dwellings, 79	national
other residential properties, 113 residential properties, 60	by age, 42
firefighters	by gender and age, 41
activity when injured, 173	trends, national, 2–3, 32
age, 169	Injuries Per Fire
cause of injury, 172	NFIRS vs NFPA, 204–205
month of year, 170	property types, 50
part of body injured, 171	trends
per property fire, 167	general property type, 51
structures, 165	manufactured housing, 92

participating states, 20-21 Institutional Structures, 132 revision NFIRS 4.1, 215 Interface Areas, wildland fires, 195-196 National Fire Problem, 1-7, 29 International Fire, 16-17, 179 age, 40-44 average death rate, 16 by gender, 37, 41 per capita death rates, 179-182 causes, 52-55 U.S. adoption of international successes, 183 by gender, 52, 54-55 ethnic groups, 45 fires per capita, property types, 47 gender, 37, 40-41 by age, 37, 41 magnitude, 31 Males. See Gender population group, 33 property types, 45-47 Manufactured Housing, 5, 88-91 relative risk by age, 40, 42 causes, 93 severity of fires, property types, Pages, 50-52 trends, per fire, 92 severity trends, general property type, 47-49 Manufacturing Structures, 134 trends, 1-2, 29-30 general property type, 47-49 Methodology of Data Presentation, 23 per capita, 31–32 Mitigation of Wildland Fires, 196 National Fire Protection Association, 23 difference from NFIRS, 26, 203-205 Mobile Homes vs. NFIRS data, 23 See also Manufactured Housing causes, 92 Natural trends, 92-93 See also Causes per fire, 92 defined, 26-27 Mobile Properties, 5, 11–12, 137 Nature of Injury cause trends, 142-144 firefighter deaths, 156-158 causes, 138, 142 firefighter deaths by age, 158-159 data problems, 144 NFIRS. See National Fire Incident Reporting property types, 138, 141 System trends, 11, 138-140 comparison by property type, 138, 140 NFPA. See National Fire Protection Association Month of Year Non-Residential Properties, 10-13, 121 apartments, 102 mobile properties, 137 non-residential structures, 121 causes, 9 firefighter deaths, 162-163 outside properties, 145 firefighter injuries, 169, 170 USFA resources, 152 non-residential structures, 124, 127 Non-Residential Structures, 10-11, 121 one- and two-family dwellings, 74, 78-79 basic industry structures, 133 outside properties, 146, 149 cause trends, 129-130 residential properties, 73 causes, 10, 127-129 time of day, 78-79 day of week, 127 eating and drinking establishments, 131 Motels. See Hotels/Motels education structures, 132 Motives of Arson Firesetter, 190-192 firefighter injuries, 164, 166 firefighter injuries per fire, 168 institutional structures, 132 manufacturing structures, 134 N month of year, 124, 127 outside structures/unknown, 135 National, property type trends, 47 property types, 10-11, 121, 123-124, 129 public assembly structures, 131 National Estimates, 23 sprinklers, 136-137 National Fire Incident Reporting System, 19 storage structures, 134 difference from NFPA, 26, 37, 203-205 stores and offices, 133 participating fire departments, 20, 22 time of day, 124-126

trends, 121-122 vacant and construction structures, 135

non-residential structures, property types, 204, 206

One- and Two-Family Dwellings, 4, 74 cause trends, 80-81 causes, 78-80 garages, 88, 89-90 heating, 80 manufactured housing, 88-91 month of year, 74 origin of fire, 9-10, 82-86 smoke detectors, 86 sprinklers, 87-88 time of day, 74, 76-77 trends, 74-75

Open Flame

See also Causes defined, 26-27

Origin of Fire

apartments, 102-106 one- and two-family dwellings, 9-10, 82-86

Other Equipment

See also Causes defined, 26-27

Other Heat

See also Causes defined, 26-27

Other Residential Properties, 108

causes, 112-113 property types, 110, 112 trends. 110-111

Outside Properties, 5, 12, 145

causes, 150, 151 data problems, 150 day of week, 146, 150 month of year, 146, 149 property types, 146, 148 time of day, 146, 149 trends, 146-148 comparison by property type, 146, 148 Outside Structures/Unknown, 135

P

Part of Body Injured, firefighters, 169, 171 Place of Treatment, firefighter injuries, 171 Population Centers, arson, 189-190 Population Group, national, 33 Population Size, arson, 189 per capita fire rate, 189 Prescribed Burn, wildland, 194-195 Property Type Trends, national, 47 **Property Types** arson, 13-14, 184, 186-187 structures, 190–191 firefighter injuries, 162, 164-165 trends, 164-165 firefighter injuries per fire, 168-169 mobile properties, 138, 141 national, 45-46 fires per capita, 47 severity of fires, Pages, 50-52 non-residential structures, 10-11, 121, 123-124, 129, 204, 206 other residential properties, 110, 112 outside properties, 146, 148

Public Assembly Structures, 131

residential properties, 57

R

Relative Risk

by age, 6 injuries, by age, 40 national deaths and injuries, by age, 40, 42

Representativeness of Sample, 24

Residential Properties, 57 apartments, 93 arson, 186 cause trends, 62-66 causes, 8-9, 59-62 day of week, 73-74 firefighter injuries, 164-165 firefighter injuries per fire, 164 hotels/motels, 106 month of year, 73 one- and two-family dwellings, 74 other residential properties, 108 property types, 57

smoke detector trends, 68–69 smoke detectors, 67–69 sprinkler trends, 68, 70 sprinklers, 68, 70 time of day, 9, 68, 71–72 trends, 57–58 USFA resources, 114

Residential Structures, firefighter injuries per fire, 167

Resources. See USFA Resources

S

Season, See Month of Year

Severity. See Deaths Per Capita; Deaths Per Fire; Dollar Loss Per Capita; Dollar Loss Per Fire; Fires Per Capita; Injuries Per Capita; Injuries Per Fire

Severity of Fires, 47, 50–53 national, property types, 50–52

Severity Trends, national, general property type, 47–49

Sex. See Gender

Sex (Gender), percent of deaths, by age, 43

Single-Family Dwellings. See One- and Two-Family Dwellings

Smoke Detectors, 7–8 apartments, 98 one- and two-family dwellings, 86 residential properties, 67–70 trends, 68–69

Sources

NFIRS, 19 NFPA, 23

Sprinklers, 7–8
apartments, 99–100
non-residential structures, 136
trends, 136
one- and two-family dwellings, 87–88
residential properties, 70
trends, 68, 70

States

death rate, 33–34 rank order by death rate, 37–38 rank order by deaths, 37–38

Storage Structures, 134
Stores and Offices, 133
Storm King Mountain, 12, 153, 154, 155
Suspicious. *See* Arson

T

Time of Alarm, firefighter deaths, 161-162

Time of Day apartments, 99–101 arson, 190–191 firefighter injuries, 169, 170 non-residential structures, 124–126 one- and two-family dwellings, 74, 76–77 outside properties, 146, 149 residential properties, 9, 68, 71–72

Trends

See also Cause Trends; Property Type Trends apartments, 94-95 arson, 184-185 residential properties, 186, 188 residential vs. non-residential properties, 186, 188 defined, 25 firefighter deaths, 13, 153-154 firefighter injuries, 13, 162-163 general property type, 162 non-residential structures, 164, 166 residential properties, 164-165 firefighter injuries per fire non-residential structures, 168 residential properties, 164 residential structures, 167 type of fire, 164, 166 garages, 89 hotels/motels, 106-107 international, 182 manufactured housing, per fire, 92 mobile homes, 92-93 per fire, 92 mobile properties, 11, 138-140 national, 2-3, 29-30 gender, 37, 40 general property type, 47-49 per capita, 31–32 non-residential structures, 121-122 sprinkler performance, 136 one- and two-family dwellings, 74-75 other residential properties, 110-111 outside properties, 146-148 residential properties, 57-58 smoke detector performance, 68-69 sprinkler performance, 68, 70

Trucks. *See* Mobile Properties

Type of Duty When Injured, firefighter deaths,

154–156

Type of Fire, firefighter injuries per fire, 164, 166

U

Unknown Causes, 26–27
Unknowns in the Data, 24
Unreported Fires, 26, 29
USFA Resources
firefighter casualties, 174
non-residential properties, 152

 $residential\ properties,\ 114-119$



Vacant and Construction Structures, 135 Vehicles. *See* Mobile Properties



Wildland Fires, 12, 194 interface areas, 195–196 mitigation, 196 prescribed burn, 195 Storm King Mountain, 12

FIGURE/TABLE INDEX

The following Deaths, Dollar Loss, Fires, and Injuries entries refer specifically to charts and tables presented in this document.

Deaths	trends, 13, 154
Deaths	type of duty, 155
age, 43	type of firefighter, 154
and gender, 44	garages
and gender, per capita, 41	causes, 90
firefighters, 159	trends, 89
per capita, 42	gender, 40
relative risk, 6, 42	and age, 44
apartments	and age, per capita, 41
causes, 96	firefighters, 154
cause trends, 97, 210	causes, 54
month of year, 102	relative risk, 42
origin of fire, 103	hotels/motels
smoke detector performance, 98	causes, 109
sprinkler performance, 99	trends, 107
time of day, 100	international rates, 16, 180-181
trends, 95	manufactured housing
arson	causes, 93
occupancy type, 14, 186	per capita, 92
property type trends, 187	trends, 91
residential structure trends, 188	mobile properties
trends, 185	causes, 142
automobiles, causes, 145	cause trends, 143
causes	highway versus other trends, 140
apartments, 96	trends, 139
apartment trends, 97, 210	vehicle types, 11, 141
automobiles, 145	month of year
by gender, 54	apartments, 102
garages, 90	firefighters, 163
hotels/motels, 109, 113	one- and two-family dwellings, 78
manufactured housing, 93	residential properties, 73
mobile properties, 142	national
mobile property trends, 143	causes, 53
national, 53	per capita trends, 3, 32
non-residential structures, 10, 128	trends, 2, 30
non-residential structure trends, 130, 212	non-residential structures
one- and two-family dwellings, 79	causes, 10, 128
one- and two-family dwelling trends, 81, 209	cause trends, 130, 212
other residential properties, 113	property types, 10, 123
residential properties, 8, 60–61	time of day, 125
residential property trends, 64, 208	trends, 122
day of week, residential properties, 73	one- and two-family dwellings
firefighters	causes, 79
activity when injured, 155	cause trends, 81, 209
activity when injured on fireground, 160	garage causes, 90
cause of injury by age, 159	garage trends, 89
cause of injury, 157 fixed property use when injured on fireground, 159	month of year, 78
	origin of fire, 9, 83, 85
gender, 154 month of year, 163	smoke detector performance, 87
nature of injury, 157	sprinkler performance, 87
nature of injury, 137 nature of injury by age, 159	time of day, 76
time of alarm, 162	trends, 75
time of afarm, 102	nonus, 15

origin of fire	firefighters, 154
apartments, 103, 105	garages, 89
one- and two-family dwellings, 9, 83, 85	gender, 40
other residential properties	hotels/motels, 107, 111
causes, 113	international, 182
trends, 111	manufactured housing, 91
types, 112	manufactured housing trends, 92
outside properties	mobile properties, 139
trends, 147	mobile property causes, 143
types, 148	mobile property type comparison, 140
per capita, 3, 32	national, 2, 30
age, 42	NFIRS versus NFPA, 205
age and gender, 41	non-residential structure causes, 130, 212
manufactured housing, 92	non-residential structures, 122
NFIRS versus NFPA, 205	one- and two-family dwelling causes, 81, 209
property types, 50	one- and two-family dwellings, 75
property type trends, 51	other residential properties, 111
property types, 5, 46	outside properties, 147
arson, 14, 186	per capita, 32
non-residential, 10, 123	per capita by property type, 51
per capita, 50	property types, 48
per capita trends, 51	property types, per capita 51
residential, 59	residential properties, 58
residential trends, 58	residential property causes, 64, 208
trends, 48	residential smoke detectors, 69
rank order of states, 39	
per capita by state, 38	Delley Loop
rate	Dollar Loss
by country, 16, 180–181	apartments
by state, 4, 34–35	time of day, 101
relative risk by age, 6, 42	trends, 95
residential properties	arson
arson trends, 188	occupancy type, 14, 186
causes, 8, 60 – 61	structure types, 191
cause trends, 64, 208	trends, 185
day of week, 73	basic industry structure causes, 133
month of year, 73	causes
property types, 59	basic industry structures, 133
smoke detector performance, 7, 67	eating and drinking establishments, 131
smoke detector performance trends, 69	education structures, 132
time of day, 71	institutional structures, 132
trends, 58	manufacturing structures, 134
smoke detector performance	national, 53
apartments, 98	non-residential structures, 128–129
one- and two-family dwellings, 87	non-residential structure trends, 130, 212
residential properties, 7, 67	outside structures/unknown, 135
residential property trends, 69	public assembly structures, 131
sprinkler performance apartments, 99	residential properties, 60–61
	residential property trends, 66, 208
one- and two-family dwellings, 87	storage structures, 134
time of day	stores and offices, 133
apartments, 100 non-residential structures, 125	vacant and construction structures, 135
one- and two-family dwellings, 76	eating and drinking establishment causes, 131 education structure causes, 132
residential properties, 71	garages, trends, 89
trends	
apartment causes, 97, 210	hotels/motels trends, 107
apartment causes, 97, 210	institutional structure causes, 132
arson, 185	manufactured housing
arson by property type, 187	per capita, 92
arson, residential structures, 188	trends, 91
21221, 100100111111 01100111100, 100	

manufacturing structure causes, 134	garages, 89
mobile properties	hotels/motels, 107, 111
highway versus other trends, 140	manufactured housing, 91
trends, 139	manufactured housing trends, 92
vehicle types, 141	mobile properties, 139
national	mobile property type comparison, 140
causes, 53	national, 2, 30
trends, 2, 30	NFIRS versus NFPA, 205
non-residential structures	non-residential structure causes, 130, 212
causes, 128-129	non-residential structures, 122, 206
cause trends, 130, 212	one- and two-family dwellings, 75
property types, 123	other residential properties, 111
property type trends, 206	outside properties, 147
sprinkler performance per fire, 137	outside property type comparison, 148
time of day, 126	per capita, 32
trends, 122	per capita by property type, 52
one- and two-family dwellings	property types, 49
garage trends, 89	property types, per capita, 52
time of day, 77	residential properties, 58
trends, 75	residential property causes, 66, 208
other residential properties	vacant and construction structure causes, 135
trends, 111	, actine and conservation servate causes, 100
types, 112	
other residential property types, 112	Fires
outside structure/unknown causes, 135	1 1163
	apartments
outside properties	causes, 96
property type trends 148	cause trends, 97, 210
trends, 147	month of year, 102
types, 148	origin of fire, 103–104
per capita, 32	smoke detector performance, 98
manufactured housing, 92	sprinkler performance, 99
NFIRS versus NFPA, 205	time of day, 100
property types, 50	trends, 95
property type trends, 52	automobiles, causes, 145
property types, 5, 46	arson
arson, 14,186	day of week, 192
non-residential causes, 129	fixed property use, 192
per capita, 50	occupancy type, 14, 186
per capita trends, 52	per capita by population size, 189
residential, 59	population size, 190
residential trends, 58	property type, 191
trends, 49	property type trends, 187
public assembly structure causes, 131	residential vs. non-residential structure trends, 188
residential properties	structure types, 191
causes, 60 – 61	time of day, 191
cause trends, 66, 208	trends, 185
property types, 59	basic industry structure causes, 133
time of day, 72	causes
trends, 58	apartments, 96
sprinkler performance per fire, 137	apartment trends, 97, 210
storage structure causes, 134	automobiles, 145
store and office causes, 133	basic industry structures, 133
time of day	eating and drinking establishments, 131
apartments, 101	education structures, 132
non-residential structures, 126	garages, 90
one- and two-family dwellings, 77	hotel/motel trends, 110, 211
residential properties, 72	hotels/motels, 109, 113
total cost of fire, 15, 198, 200201	institutional structures, 132
trends	manufacturing structures, 134
apartments, 95	manufacturing structures, 134
	manuractured nousing, 93 mobile properties, 142
arson, 185	moone properties, 142

mobile property trends, 143	one- and two-family dwellings
national, 53	causes, 79
non-residential structures, 10, 128–129	cause trends, 81, 209
non-residential structure trends, 130, 212	garage causes, 90
one- and two-family dwellings, 79	garage trends, 89
one- and two-family dwelling trends, 81, 209	heating, 80
other residential properties, 113	month of year, 78
outside properties, 151	origin of fire, 9, 83–84
outside structures, 135	smoke detector performance, 87
public assembly structures, 131	sprinkler performance, 87
residential properties, 8, 60-61	time of day, 76
residential property trends, 63, 208	trends, 75
storage structures, 134	origin of fire
stores and offices, 133	apartments, 103–104
vacant and construction structures, 135	one- and two-family dwellings, 9, 83–84
day of week	other residential properties
arson, 192	causes, 113
non-residential structures, 127	trends, 111
outside properties, 150	types, 112
residential properties, 73	outside properties
eating and drinking establishment causes, 131	causes, 151
education structure causes, 132, 133	day of week, 150
garages	month of year, 149
causes, 90	time of day, 149
trends, 89	trends, 147
heating, 80	types, 148
hotels/motels	outside structure/unknown causes, 135
causes, 109	per capita, 32
cause trends, 110, 211	property types, 5, 46
trends, 107	arson, 14, 186
institutional structure causes, 132	non-residential, 10, 123
manufactured housing	non-residential causes, 129
causes, 93	residential, 59
trends, 91	residential trends, 58
manufacturing structure causes, 134	trends, 48
mobile properties	public assembly structure causes, 131
causes, 142	residential properties
cause trends, 143	causes, 8, 60–61
highway versus other trends, 140	cause trends, 63, 208
trends, 139	day of week, 73
vehicle types, 11, 141	month of year, 73
month of year	property types, 59
apartments, 102	smoke detector performance, 7, 67
non-residential structures, 127	smoke detector performance trends, 69
one- and two-family dwellings, 78	sprinkler performance, 70
outside properties, 149	sprinkler performance trends, 70
residential properties, 73	time of day, 71
national	trends, 58
causes, 53	smoke detector performance
trends, 2, 30	apartments, 98
non-residential structures	one- and two-family dwellings, 87
causes, 10, 128–129	residential properties, 7, 67
cause trends, 130, 212	residential property trends, 69
day of week, 127	sprinkler performance
month of year, 127	apartments, 99
property types, 10, 123	non-residential structures, 136
property type trends, 206	non-residential structure trends, 136
sprinkler performance, 136	one- and two-family dwellings, 87
sprinkler performance, 136	residential properties, 70
time of day, 125	residential property trends, 70
trends, 122	storage structure causes, 134
·	O

store and office causes, 133	firefighters, 172
time of day	garages, 90
apartments, 100	hotels/motels, 108, 109, 113
arson, 141	mobile properties, 142
non-residential structures, 125	mobile property trends, 143
one- and two-family dwellings, 76	national, 53
outside properties, 149	non-residential structures, 128
residential properties, 71	non-residential structure trends, 130, 212
trends	one- and two-family dwellings, 79
apartment causes, 97, 210	one- and two-family dwelling trends, 81, 209
apartments, 95	other residential properties, 113
arson, 185	residential properties, 60-61
arson by property type, 187	residential property trends, 65, 208
garages, 89	firefighters
hotel/motel causes, 110, 211	activity when injured, 173
hotels/motels, 107, 111	age, 169
manufactured housing, 91	causes, 172
mobile properties, 139	month of year, 170
mobile property causes, 143	non-residential structure trends, 166, 213
mobile property type comparison, 140	non-residental structure per fire trends, 168, 213
national, 2, 30	part of body injured, 171
non-residential sprinklers, 136	per capita, 166
non-residential structure causes, 130, 212	per property fire, 167
non-residential structures, 122, 206	property type, 165
one- and two-family dwelling causes, 81, 209	perperty type per fire, 167
one- and two-family dwellings, 75	property type trends, 164
other residential properties, 111	residential structure trends, 165
outside properties, 147	residential structure per fire trends, 167
per capita, 32	time of day, 170
property types, 48	trends, 163
residential properties, 58	where treated, 173
residential property causes, 63, 208	garages
residential smoke detectors, 69	causes, 90
residential sprinklers, 70	trends, 89
vacant and construction structure causes, 135	gender, 40
,	and age, 44
	and age, per capita, 41
Injurios	causes, 54
Injuries	relative risk, 42
age, 43	hotels/motels
and gender, 44	causes, 109
and gender, per capita, 41	cause trends, 108
firefighters, 169	trends, 107
per capita, 42	manufactured housing
relative risk, 6, 42	per capita, 92
apartments	trends, 91
causes, 96	mobile properties
cause trends, 97, 210	causes, 142
origin of fire, 103, 106	cause trends, 143
time of day, 101	trends, 139
trends, 95	vehicle types, 11, 141
automobiles, causes, 145	month of year, firefighters 170
arson	national
occupancy type, 14, 186	causes, 53
residential structure trends, 188	per capita trends, 3, 32
trends, 185	trends, 2, 30
causes	non-residential structures
apartments, 96	causes, 128
apartment trends, 97, 210	cause trends, 130, 212
automobiles, 145	firefighter trends, 166
by gender, 54	firefighter per fire trends, 168
	0 1 , - 30

property types, 123	cause trends, 65, 208
time of day, 126	firefighter trends, 165
trends, 122	firefighter per fire trends, 167
one- and two-family dwellings	property types, 59
causes, 79	time of day, 72
cause trends, 81, 209	trends, 58
garage causes, 90	time of day
garage trends, 89	apartments, 101
origin of fire, 9, 83, 86	firefighters, 170
time of day, 77	non-residential structures, 126
trends, 75	one- and two-family dwellings, 77
origin of fire	residential properties, 72
apartments, 103, 106	trends
one- and two-family dwellings, 9, 83, 86	apartment causes, 97, 210
other residential properties	apartments, 95
causes, 113	arson, 185
trends, 111	arson, residential structures, 188
types, 112	firefighter injuries by non-residential structure type, 166
outside properties	firefighter injuries by residential structure type, 165
trends, 147	firefighters, 13, 163
types, 148	firefighters by property type, 164
per capita, 3, 32	firefighters, per non-residential structure fire, 168, 213
age, 42	firefighters, per residential structure fire, 167
age and gender, 41	firefighters, per type of fire, 166, 213
firefighters, 166	garages, 89
firefighters, by property type 167	gender, 40
firefighters, non-residential structure trends, 168	hotel/motel causes, 108, 211
firefighters, residential structure trends, 167	hotels/motels, 107, 111
manufactured housing, 92	manufactured housing, 91
NFIRS versus NFPA, 205	manufactured housing trends, 92
property types, 50	mobile properties, 139
property type trends, 51	mobile property causes, 144
property types, 5, 46	mobile property type comparison, 140
arson, 14, 186	national, 2, 30
firefighters, 165	NFIRS versus NFPA, 205
firefighters per fire, 167	non-residential structure causes, 130, 212
firefighter trends, 164	non-residential structures, 122
per capita, 50	one- and two-family dwelling causes, 81, 209
per capita trends, 51	one- and two-family dwellings, 75
residential, 59	other residential properties, 111
residential trends, 58	outside properties, 147
trends, 49	per capita, 32
relative risk by age, 6, 42	per capita by property type, 51
residential properties	property types, 49
arson trends, 188	residential properties, 58
causes, 60–61	residential property causes, 65, 208
·	1 1 2,,